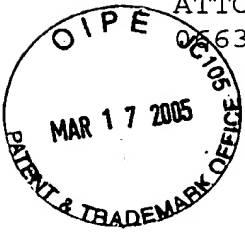


ATTORNEY DOCKET NO.  
086303.0112

PATENT APPLICATION  
09/491,299

03-2105

AAZ



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: A. J. Paul Carew, et al.  
Serial No.: 09/491,299  
Filing Date: January 25, 2000  
Group Art Unit 2661  
Examiner Bob A. Phunkulh  
Title: METHOD AND APPARATUS FOR PROVIDING  
VOICE SIGNALS TO AND FROM A  
TELECOMMUNICATIONS SWITCH

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

CERTIFICATE OF MAILING BY EXPRESS MAIL

I hereby certify that the attached Appeal Brief is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on this 17th day of March 2005, addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Willie Jiles

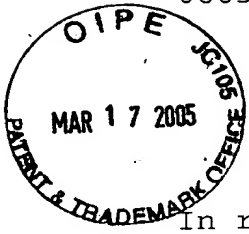
Willie Jiles

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Commissioner for Patents  
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Dear Sir:

APPEAL BRIEF

Applicant has appealed to the Board of Patent Appeals and Interferences from the decision of the Examiner mailed September 15, 2004, finally rejecting Claims 36-84. Applicant filed a Notice of Appeal on January 17, 2005. Applicant respectfully submits herewith their brief on appeal with a statutory fee of \$250.00.

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REAL PARTY IN INTEREST

The present application was assigned to General Bandwidth Inc., a Delaware corporation, as indicated by an assignment from the inventors recorded on October 18, 1999 in the Assignment Records of the United States Patent and Trademark Office at Reel 010316, Frames 0292-0295.

RELATED APPEALS AND INTERFERENCES

There are no known appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

STATUS OF CLAIMS

Claims 1-35 have been canceled without prejudice or disclaimer. Claims 36-84 stand rejected pursuant to a Final Action mailed September 15, 2004. Claims 36-84 are all presented for appeal.

STATUS OF AMENDMENTS

A Response to Examiner's Final Action was filed on November 15, 2004 in response to the Final Action mailed September 15, 2004. No amendments were made to the claims. The Examiner issued an Advisory Action dated December 27, 2004 which stated that the Response to Examiner's Final Action was considered but that it did not place the application in condition for allowance. A Notice of Appeal was filed on January 17, 2005.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention involves a voice gateway (64) that receives a voice call from a Class 5 switch (52) and converts the voice signal of the voice call to a digital format. The voice signal is placed into a compressed format using a selected compression ratio. The voice signal is then placed into a selected transport frame for routing to a customer telephone device. The voice gateway (64) is capable of detecting a distinctive ring associated with the voice call. The voice gateway (64) determines which of the customer telephone devices to route the call according to the distinctive ring. See FIGURES 1 and 2 as well as page 12, line 11, to page 13, line 7, and page 14, lines 22-31, of Applicant's specification.

For outgoing calls to a Class 5 switch (52) a first telephone device may be in use and occupying an unbundled analog line (62). In order for a second telephone device to be in use, there must be an available unbundled analog line (62) connected to the voice gateway (64). An output port (88) of the voice gateway (64) determines if there is an available unbundled analog line (62). In this manner, oversubscription is supported by the voice gateway (64). See FIGURES 1 and 2 as well as page 13, lines 8-30, and page 14, lines 8-21, of Applicant's specification.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Did the Examiner err in concluding that Claims 36-39, 41-51, 53-65, 67-76, 78-81, 83, and 84 were anticipated under 35 U.S.C. §102(e) by U. S. Patent No. 6,411,704 issued to Pelletier, et al.?

2. Did the Examiner err in concluding that Claims 40, 52, 66, 76, and 81 were obvious under 35 U.S.C. §103(a) over the Pelletier, et al. patent in view of U. S. Patent No. 5,949,763 issued to Lund?

ARGUMENT

1. Claims 36-39, 41-51, 53-65, 67-76, 78-81, 83, and 84 stand rejected under 35 U.S.C. §102(e) as being anticipated by Pelletier, et al. To anticipate a claim under 35 U.S.C. §102(b), a single prior art reference must teach each and every limitation as set forth in the claim. Since the cited prior art reference does not teach each and every element set forth in the claims, Applicant respectfully traverses this rejection.

Independent Claim 36

Independent Claim 36 recites ". . . a voice gateway coupled to the telecommunications switch using the line, the voice gateway operable to receive the incoming call, to detect a unique distinctive ring assigned to the telephone number associated with the incoming call, and to communicate the incoming call according to the distinctive ring." Support for the above recitation can be found at page 14, lines 22-31, of Applicant's specification. By contrast, the Pelletier, et al. patent does not communicate the incoming call according to the distinctive ring. The Pelletier, et al. patent merely uses a distinctive ring to let a called party determine whether the incoming call came directly from a calling party or through its IP server. The portion of the Pelletier, et al. patent cited by the Examiner illustrates that distinctive rings are used for calls processed by its IP Server and calls directly between calling and called parties without IP Server intervention. Thus, distinctive rings are not used in routing of calls in the Pelletier, et al. patent. Moreover, the IP Server of the Pelletier, et al. patent uses the caller ID of the call to determine how to communicate the call and not the distinctive ringing as required in the claimed invention. See

col. 6, lines 51-54. Thus, the distinctive ring of the Pelletier, et al. patent identifies how the incoming call was routed to the called party and does not determine how to communicate the incoming call as provided by the claimed invention. The Pelletier, et al. patent has no disclosure whatsoever where the distinctive ring is used to route the call as provided by the claimed invention.

Moreover, Independent Claim 36 recites ". . . a telecommunications switch operable to assign a plurality of telephone numbers to a line . . ." By contrast, the Pelletier, et al. patent has no disclosure with respect to oversubscription of a line. The portions of the Pelletier, et al. patent identified by the Examiner make no mention of line oversubscription.

According to the above discussion, Independent Claim 36, as well as its dependent claims, is not anticipated by the Pelletier, et al. patent.

#### Independent Claims 48 and 61

Similarly, Independent Claims 48 and 61 recite in general the ability to receive a first and second incoming calls with first and second distinctive rings from the line and to communicate the first and second incoming calls to first and second destinations, respectively, according to the first and second distinctive rings. As stated above, the Pelletier, et al. patent uses a distinctive ring to provide a ready identification for the called party as to how the call is being received and not for a determination of how the incoming call is to be communicated as provided by the claimed invention.

Additionally, the Pelletier, et al. patent has no disclosure with respect to oversubscription of an analog line,

especially a 4:1 oversubscription as provided in Claims 55 and 69. The portions of the Pelletier, et al. patent identified by the Examiner make no mention of line oversubscription.

According to the above discussion, Independent Claims 48 and 61, as well as their dependent claims, are not anticipated by the Pelletier, et al. patent.

Independent Claims 75 and 80

Independent Claims 75 and 80 recite in general the ability to identify an available unbundled line from the plurality of unbundled lines and to communicate the voice signal to the telecommunications switch using the available unbundled line. By contrast, the first portion of the Pelletier, et al. patent cited by the Examiner to support this rejection merely shows a single dial up connection between the PSTN and the ITG. Thus, the Pelletier, et al. patent does not have a plurality of unbundled lines let alone an ability to identify an available one as provided by the claimed invention. The second portion of the Pelletier, et al. patent cited by the Examiner merely discloses communicating between its local gateway and its service platform using conventional circuit-switched telephony protocol in order to process a service request within data packets. By contrast, the claimed invention is determining an available unbundled line with which to transfer a voice signal. Thus, the citation to the Pelletier, et al. patent provided by the Examiner has no relation to the features required in the claimed invention.

According to the above discussion, Independent Claims 75 and 80, as well as their dependent claims, are not anticipated by the Pelletier, et al. patent.



2. Claims 40, 52, 66, 76, and 81 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Pelletier, et al. in view of Lund. Independent Claims 36, from which Claim 40 depends; Independent Claim 48, from which Claim 52 depends; Independent Claim 61, from which Claim 66 depends; Independent Claim 75, from which Claim 76 depends, and Independent Claim 80, from which Claims 81 depends, have been shown above to be patentably distinct from the Pelletier, et al. patent. Moreover, the Lund patent does not disclose any additional information combinable with the Pelletier, et al. patent that would be material to patentability of these claims. Further, the Examiner has not established a prima facie case of obviousness to support the rejection of Claims 40, 52, 66, 76, and 81. The three criteria necessary to establish a prima facie case of obviousness as spelled out in M.P.E.P. §2143 have not been mentioned by the Examiner let alone discussed in any detail. Therefore, Applicant respectfully submits that Claims 40, 52, 66, 76, and 81 are patentably distinct from the proposed Pelletier, et al. - Lund combination.

CONCLUSION

Applicant has clearly demonstrated that the present invention as claimed is clearly distinguishable over all the art cited of record, either alone or in combination, and satisfies all requirements under 35 U.S.C. §§101, 102, and 103, and 112. Therefore, Applicant respectfully requests the Board of Patent Appeals and Interferences to reverse the final rejection of the Examiner and instruct the Examiner to issue a notice of allowance of all claims.

The Commissioner is hereby authorized to charge the amount of \$250.00 to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P. in order to satisfy the appeal brief filing fee of 37 C.F.R. §41.20(b)(2).

The Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.

Attorneys for Applicant

A handwritten signature in black ink, appearing to read "Charles S. Fish", with a stylized flourish at the end.

Charles S. Fish

Reg. No. 35,870

March 17, 2004

Correspondence Address:

2001 Ross Avenue, Suite 600

Dallas, TX 75201-2980

(214) 953-6507

Customer Number: 05073

APPENDIX A

1-35. (Canceled).

36. (Previously Presented) A system for supporting oversubscription, comprising:

a telecommunications switch operable to assign a plurality of telephone numbers to a line, to receive an incoming call for one of the telephone numbers, and to communicate the incoming call associated with the telephone number using the line; and

a voice gateway coupled to the telecommunications switch using the line, the voice gateway operable to receive the incoming call, to detect a unique distinctive ring assigned to the telephone number associated with the incoming call, and to communicate the incoming call according to the distinctive ring.

37. (Previously Presented) The system of Claim 36, wherein the voice gateway communicates the incoming call by processing the incoming call into digital packets according to the distinctive ring and communicating the digital packets to a customer premises interface for further communication to a customer premises.

38. (Previously Presented) The system of Claim 37, wherein the voice gateway processes the incoming call into the digital packets according to the distinctive ring by identifying an address associated with the distinctive ring and assigning the address to the digital packets.

39. (Previously Presented) The system of Claim 38, wherein the address is an Internet Protocol (IP), Asynchronous Transfer Mode (ATM), or Frame Relay address.

40. (Previously Presented) The system of Claim 37, wherein the customer premises interface is a Digital Subscriber Line Access Multiplexer (DSLAM) operable to communicate the digital packets over a twisted pair in a local loop using a digital subscriber line.

41. (Previously Presented) The system of Claim 36, wherein the voice gateway is further operable to communicate the incoming call to a selected one of a plurality of output lines according to the distinctive ring.

42. (Previously Presented) The system of Claim 36, wherein the telecommunications switch is further operable to assign at least four telephone numbers to the line.

43. (Previously Presented) The system of Claim 36, wherein the voice gateway is further operable to receive an outgoing call originated at a customer premises, to identify an available line from a plurality of lines coupled between the telecommunications switch and the voice gateway, and to communicate the outgoing call to the telecommunications switch using the available line.

44. (Previously Presented) The system of Claim 43, wherein the voice gateway communicates the outgoing call by receiving digital packets, processing the digital packets into a voice signal, and communicating the voice signal to the telecommunications switch using the available line.

45. (Previously Presented) The system of Claim 43, wherein the plurality of lines is a hunt group.

46. (Previously Presented) The system of Claim 36, wherein:

the telecommunications switch is a Class 5 switch; and  
the voice gateway is further operable to couple to the Class 5 switch without using an overlay Class 5 switch or digital loop carrier architecture.

47. (Previously Presented) The system of Claim 36, wherein the line is an unbundled analog line.

48. (Previously Presented) A voice gateway for supporting oversubscription of a line coupled to a telecommunications switch, the voice gateway operable to receive a first incoming call with a first distinctive ring from the line and to communicate the first incoming call to a first destination according to the first distinctive ring, the voice gateway further operable to receive a second incoming call with a second distinctive ring from the line and to communicate the second incoming call to a second destination according to the second distinctive ring.

49. (Previously Presented) The voice gateway of Claim 48, wherein the voice gateway communicates the first incoming call by processing the first incoming call into digital packets according to the first distinctive ring and communicating the digital packets to a customer premises.

50. (Previously Presented) The voice gateway of Claim 49, wherein the voice gateway processes the first incoming call into the digital packets according to the first distinctive ring by identifying an address associated with the first distinctive ring and assigning the address to the digital packets.

51. (Previously Presented) The voice gateway of Claim 50, wherein the address is an Internet Protocol (IP), Asynchronous Transfer Mode (ATM), or Frame Relay address.

52. (Previously Presented) The voice gateway of Claim 49, wherein the voice gateway communicates the digital packets to the customer premises using a Digital Subscriber Line Access Multiplexer (DSLAM) operable to communicate the digital packets over a twisted pair in a local loop using a digital subscriber line.

53. (Previously Presented) The voice gateway of Claim 48, wherein the voice gateway is further operable to communicate the first incoming call to a selected one of a plurality of output lines according to the first distinctive ring.

54. (Previously Presented) The voice gateway of Claim 48, wherein the voice gateway receives the second incoming call after terminating the first incoming call.

55. (Previously Presented) The voice gateway of Claim 48, wherein the voice gateway is further operable to support oversubscription of at least 4:1.

56. (Previously Presented) The voice gateway of Claim 48, wherein the voice gateway is further operable to receive an outgoing call originated at a customer premises, to identify an available line from a plurality of lines coupled to the telecommunications switch, and to communicate the outgoing call to the telecommunications switch using the available line.

57. (Previously Presented) The voice gateway of Claim 56, wherein the voice gateway communicates the outgoing call by receiving digital packets, processing the digital packets into a voice signal, and communicating the voice signal to the telecommunications switch using the available line.

58. (Previously Presented) The voice gateway of Claim 56, wherein the plurality of lines is a hunt group.

59. (Previously Presented) The voice gateway of Claim 48, wherein:

the telecommunications switch is a Class 5 switch; and  
the voice gateway is further operable to couple to the Class 5 switch without using an overlay Class 5 switch or digital loop carrier architecture.

60. (Previously Presented) The voice gateway of Claim 48, wherein the lines are unbundled analog lines.

61. (Previously Presented) A method for supporting oversubscription of a line coupled to a telecommunications switch, comprising:

receiving a first incoming call with a first distinctive ring from the line coupled to the telecommunication switch;

communicating the first incoming call to a first destination according to the first distinctive ring;

receiving a second incoming call with a second distinctive ring from the line; and

communicating the second incoming call to a second destination according to the second distinctive ring.

62. (Previously Presented) The method of Claim 61, wherein communicating the first incoming call to the first destination according to the first distinctive ring further comprises:

processing the first incoming call into digital packets according to the first distinctive ring; and

communicating the digital packets to a customer premises.

63. (Previously Presented) The method of Claim 62, wherein processing the first incoming call into the digital packets according to the first distinctive ring further comprises:

identifying an address associated with the first distinctive ring; and

assigning the address to the digital packets.



64. (Previously Presented) The method of Claim 63, wherein the address is an Internet Protocol (IP), Asynchronous Transfer Mode (ATM), or Frame Relay address.

65. (Previously Presented) The method of Claim 62, wherein communicating the digital packets to the customer premises further comprises communicating the digital packets to a customer premises interface for further communications to the customer premises.

66. (Previously Presented) The method of Claim 65, wherein the customer premises interface is a Digital Subscriber Line Access Multiplexer (DSLAM) operable to communicate the digital packets over a twisted pair in a local loop using a digital subscriber line.

67. (Previously Presented) The method of Claim 61, wherein communicating the first incoming call to the first destination according to the first distinctive ring further comprises:

selecting one of a plurality of output lines according to the first distinctive ring; and

communicating the first incoming call using the selected output line.

68. (Previously Presented) The method of Claim 61, further comprising terminating the first incoming call before receiving the second incoming call.

69. (Previously Presented) The method of Claim 61, further comprising providing at least 4:1 oversubscription of the line.

70. (Previously Presented) The method of Claim 61, further comprising:

receiving an outgoing call from a customer premises;  
identifying an available line from a plurality of lines coupled to the telecommunications switch; and  
communicating the outgoing call to the telecommunications switch using the available line.

71. (Previously Presented) The method of Claim 70, wherein communicating the outgoing call to the telecommunications switch further comprises:

receiving digital packets from a customer premises interface;  
processing the digital packets into a voice signal; and  
communicating the voice signal to the telecommunications switch using the available line.

72. (Previously Presented) The method of Claim 70, wherein the plurality of lines is a hunt group.

73. (Previously Presented) The method of Claim 61, wherein:

the telecommunications switch is a Class 5 switch; and  
the lines couple to the Class 5 switch without using an overlay Class 5 switch or digital loop carrier architecture.

74. (Previously Presented) The method of Claim 61, wherein the lines are unbundled analog lines.

75. (Previously Presented) A voice gateway for supporting oversubscription of a plurality of unbundled lines coupled to a telecommunications switch, the voice gateway operable to receive digital packets from a customer premises, to process the digital packets into a voice signal, to identify an available unbundled line from the plurality of unbundled lines, and to communicate the voice signal to the telecommunications switch using the available unbundled line.

76. (Previously Presented) The voice gateway of Claim 75, wherein the voice gateway receives the digital packets from the customer premises using a Digital Subscriber Line Access Multiplexer (DSLAM) operable to receive digital packets over a twisted pair in a local loop using a digital subscriber line.

77. (Previously Presented) The voice gateway of Claim 75, wherein the plurality of unbundled lines is a hunt group.

78. (Previously Presented) The voice gateway of Claim 75, wherein the unbundled lines are Integrated Services Digital Network Basic Rate Interface (ISDN BRI) lines, each ISDN BRI line operable to simultaneously communicate two voice signals between the telecommunications switch and the voice gateway.

79. (Previously Presented) The voice gateway of Claim 75, wherein:

the telecommunications switch is a Class 5 switch; and  
the unbundled lines couple to the Class 5 switch without using an overlay Class 5 switch or digital loop carrier architecture.

80. (Previously Presented) A method for supporting oversubscription of a plurality of unbundled lines coupled to a telecommunications switch, further comprising:

receiving digital packets from a customer premises;  
processing the digital packets into a voice signal;  
identifying an available unbundled line from the plurality of unbundled lines; and  
communicating the voice signal to the telecommunications switch using the available unbundled line.

81. (Previously Presented) The method of Claim 80, wherein receiving the digital packets from the customer premises further comprises using a Digital Subscriber Line Access Multiplexer (DSLAM) to receive digital packets over a twisted pair in a local loop using a digital subscriber line.

82. (Previously Presented) The method of Claim 80, wherein the plurality of unbundled lines is a hunt group.

83. (Previously Presented) The method of Claim 80, wherein the unbundled lines are Integrated Services Digital Network Basic Rate Interface (ISDN BRI) lines, each ISDN BRI line operable to simultaneously communicate two voice signals between the telecommunications switch and the voice gateway.

84. (Previously Presented) The method of Claim 80, wherein:

the telecommunications switch is a Class 5 switch; and  
the unbundled lines couple to the Class 5 switch without using an overlay Class 5 switch or digital loop carrier architecture.